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GRAPHICAL SYMBOLS USED IN ELECTROTECHNOLOGY

PART XII ELECTRO-ACOUSTIC TRANSDUCERS AND RECORDING AND REPRODUCING SYSTEMS

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GRAPHICAL SYMBOLS USED IN ELECTROTECHNOLOGY

PART XII ELECTRO-ACOUSTIC TRANSDUCERS AND RECORDING AND REPRODUCING SYSTEMS

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(*Continued on page* 2)

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GRAPHICAL SYMBOLS USED IN ELECTROTECHNOLOGY
PART XII ELECTRO-ACOUSTIC TRANSDUCERS AND RECORDING AND REPRODUCING SYSTEMS

0. FOREWORD

0.1 This Indian Standard (Part XII) was adopted by the Indian Standards Institution on 19 September 1969, after the draft finalized by the Electrotechnical Standards Sectional Committee, in consultation with the Acoustics Sectional Committee, had been approved by the Electrotechnical Division Council.

0.2 This standard (Part XII) deals with the graphical symbols for electro-acoustic transducers and recording and reproducing systems.

0.3 It is common in electrical and electronic engineering practice to employ graphical symbols to denote the various means and devices used in making diagrams of connections. With the object of making these diagrams easy to understand and universal in meaning, it has become necessary to standardize the basic symbols for various devices.

0.4 In selecting and devising these symbols, the object has been to ensure that the symbols, as far as possible, are self explanatory, easy to draw in general use.

0.5 While preparing this standard, assistance has been derived from the following documents issued by the International Electrotechnical Commission:

IEC/TC 3 (Central Office) 487 Symbols for microphones, ear-phones, loudspeakers, recording, reproducing and erasing heads and hydrophones.

IEC/TC 3 (Central Office) 518 Block symbols for recorders and reproducers.

0.6 This standard is one of a series of Indian Standards for graphical symbols used in electro-technology. A list of standards so far published in this series is given on page 10.

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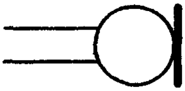
1. SCOPE

1.1 This standard (Part XII) specifies graphical symbols to be employed to represent microphones, ear-phones, loudspeakers, recording, reproducing and erasing heads, hydrophones and recording and reproducing systems.

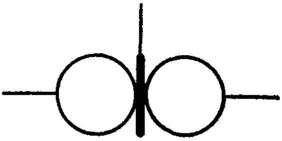
2. ELECTRO-ACOUSTIC TRANSDUCERS

2.1 General Symbols

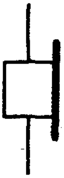
2.1.1 *Microphone*



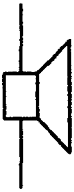
2.1.2 *Microphone, Push-Pull*



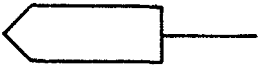
2.1.3 *Ear-phone* (*Receiver*)



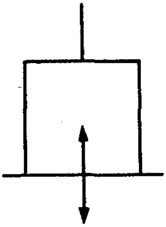
2.1.4 *Loudspeaker*



2.1.5 *Transducer Head, Monophonic Head*



2.1.6 *Ultrasonic Transmitter Receiver*

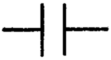


2.1.7 *Hydrophone* — Under consideration

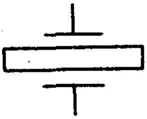
2.2 Qualifying Symbols

2.2.0 If it is essential to indicate the different types of microphone, loudspeaker, recording head, etc, the following symbols may be drawn inside or adjacent to the general symbols.

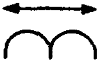
2.2.1 *Capacitor Type*



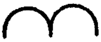
2.2.2 *Piezo-electric Type*



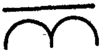
2.2.3 *Magneto-striction Type*



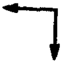
2.2.4 *Moving Coil or Ribbon Type*



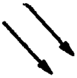
2.2.5 *Moving Iron Type*



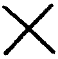
2.2.6 *Stereo Type*



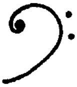
2.2.7 *Light Dependent Type (Arrows Towards the Symbol), Light Generating and/or Modulating Type (Arrows Away from Symbol)*



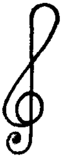
2.2.8 *Erasing*



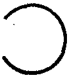
2.2.9 *Low Audio-Frequency*



2.2.10 *High Audio-Frequency*

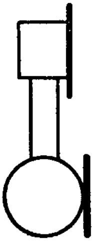


2.2.11 *Magnetic Track*

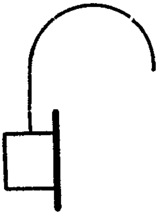


2.3 Examples (Illustrative)

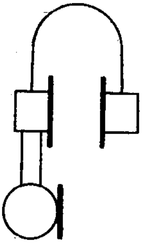
2.3.1 *Handset*



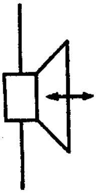
2.3.2 *Headgear Receiver, Single*



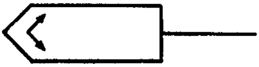
2.3.3 *Headset*



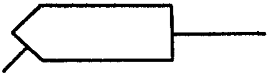
2.3.4 *Loudspeaker-Microphone*



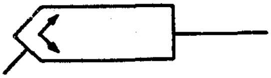
2.3.5 *Transducer Head, Stereophonic Head*



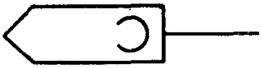
2.3.6 *Stylus Operated Head, Monophonic*



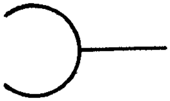
2.3.7 *Stylus Operated Head, Stereophonic*



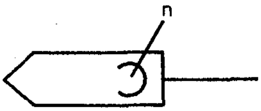
2.3.8 *Head for Magnetic Track*



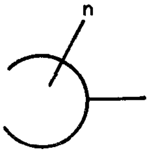
2.3.8.1 *Simplified form*



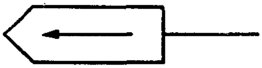
2.3.9 *Head for 'n' Magnetic Tracks*



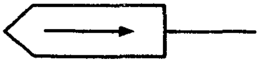
2.3.9.1 *Simplified form*



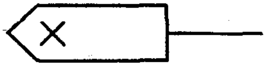
2.3.10 *Recording (Writing) Head, Monophonic*



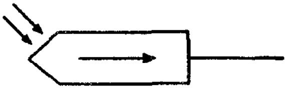
2.3.11 *Reproducing (Reading, Playback) Head, Monophonic*



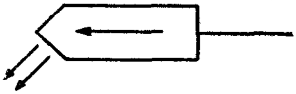
2.3.12 *Erasing Head*



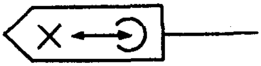
2.3.13 *Light Sensitive Reading Head, Monophonic*



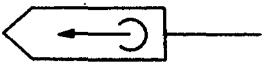
2.3.14 *Writing Head Producing Modulated Light, Monophonic*



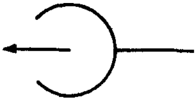
2.3.15 *Head for Writing, Reading and Erasing Magnetic Track, Monophonic*



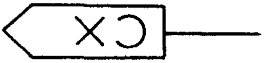
2.3.16 *Writing Head for Magnetic Track, Monophonic*



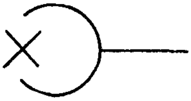
2.3.16.1 *Simplified form*



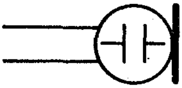
2.3.17 *Erasing Head for Magnetic Track*



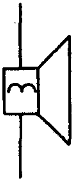
2.3.17.1 *Simplified form*



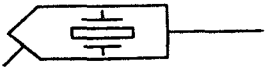
2.3.18 *Electrostatic (Capacitor) Microphone*



2.3.19 *Moving Coil Loudspeaker*



2.3.20 *Piezo-electric Recording or Reproducing Stylus-Operated Head*



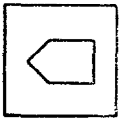
3. RECORDING AND REPRODUCING SYSTEMS

3.1 General Symbols

3.1.1 *Recorder and/or Reproducer*

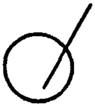
Note 1 — If it is desired to give more details of the equipment, the appropriate qualifying symbol shown in **3.2** may be used.

Note 2 — Recording and/or reproducing can be indicated by means of arrows added to the appropriate side of the square.

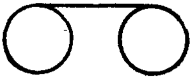


3.2 Qualifying Symbols

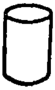
3.2.1 *Disc*



3.2.2 *Tape or Film*

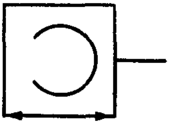


3.2.3 *Drum*

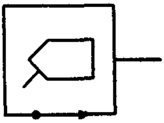


3.3 Examples

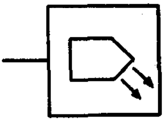
3.3.1 *Recorder and Reproducer Using Magnetic Tracks*



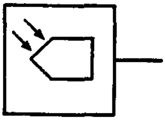
3.3.2 *Reproducer with a Stylus Operated Head*



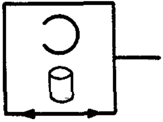
3.3.3 *Recorder Using a Head Producing Modulated Light*



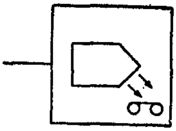
3.3.4 *Reproducer Using a Light Operated Head*



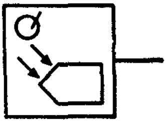
3.3.5 *Recorder and Reproducer, Magnetic Drum Type*



3.3.6 *Recorder Film-Type, with a Head Producing Modulated Light*



3.3.7 *Reproducer, Disc-Type, with a Light-Operated Head*



INDIAN STANDARDS

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